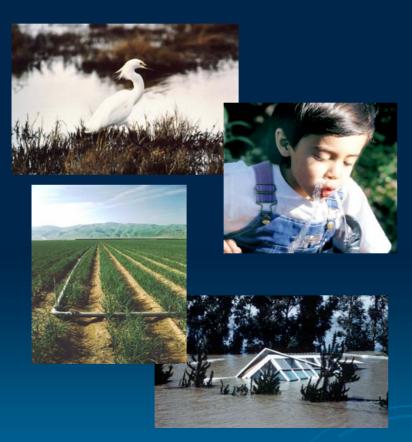
# Managing Water Resources in California

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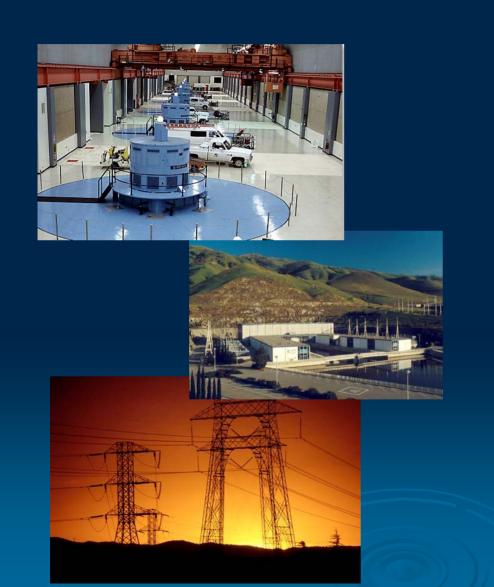
## Climate Change Impacts on California's Water Resources



Reduced snowpack

- Earlier snowmelt results in increased flood control demand on reservoir space
- Higher water temperatures impacts ecosystem
- Sea level rise impacts the Delta, threatens levees and increases salinity
- Increased demand in all sectors

### Water, Energy and Climate Change



Future water management activities must carefully consider strategies to reduce greenhouse gas emissions



### New IPCC Findings



#### INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



Climate Change 2007: Impacts, Adaptation and Vulnerability

Working Group II Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report

#### Summary for Policymakers

This Summary for Policymakers was formally approved at the 8<sup>th</sup> Session of Working Group II of the IPCC, Brussels, April 2007

Corrections made as of 13 April 2007.

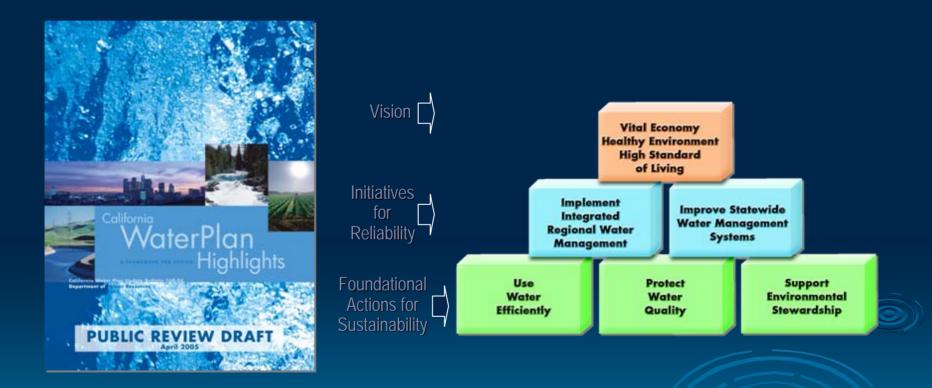
Note: text, table and figures given here are final but subject to checking and copyediting and editorial adjustments to figures

#### Drafting Anthory

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- Confirms impacts we are already witnessing
- Emphasizes the importance of adaptation
- Impacts dependent upon both climate change and adaptive capacity
- Recommends a portfolio approach

## Framework for Action Sustainable & Reliable Water in 2030



Climate change is the sole focus of one of the 14 major recommendations

### Resource Management Strategies

#### **Reduce Water Demand**

- Agricultural Water Use Efficiency
- Urban Water Use Efficiency

### Improve Operational Efficiency & Transfers

- Conveyance
- System Reoperation
- Water Transfers

### **Increase Water Supply**

- Conjunctive Management & Groundwater Storage
- Desalination –Brackish & Seawater
- Precipitation Enhancement
- Recycled Municipal Water
- Surface Storage CALFED
- Surface Storage Regional/Local

### **Improve Water Quality**

- Drinking Water Treatment and Distribution
- Groundwater/Aquifer Remediation
- Matching Quality to Use
- Pollution Prevention
- Urban Runoff Management

### **Practice Resource Stewardship**

- Agricultural Lands Stewardship
- Economic Incentives (Loans, Grants, and Water Pricing)
- Ecosystem Restoration
- > Floodplain Management
- Recharge Areas Protection
- Urban Land Use Management
- Water-Dependent Recreation
- Watershed Management

## California Water Management and Climate Change

- Climate change presents significant challenges for the management of California's water resources.
- Climate change is occurring incrementally and will likely continue to do so based on historical records over the past 100 years and most projections.
- California's water management systems already provide a some degree of operational flexibility.
- We should have time to plan for future climate change and adapt to it.
- Bond funding